

REMARKS

Favorable reconsideration of this application, as presently amended, is respectfully requested.

Claims 6-11 are presently pending. Claims 6-11 have been amended by the present amendment. No new matter has been added by the present amendment.

In the Office Action Claims 6 and 9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,839,650 to Geen et al. (hereinafter “the ‘650 patent”) in view of U.S. Patent No. 6,804,187 to Miyanabe et al. (hereinafter “the ‘187 patent”). Claims 7, 8, 10 and 11 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicants wish to thank Examiner Young for the indication of allowable subject matter in Claims 7, 8, 10, and 11.

Applicants also wish to thank Examiner Young for the interview granted Applicants’ representatives on May 15, 2009, at which time the outstanding rejection of the claims was discussed. Specifically discussed were the crosstalk systems disclosed by the cited references, and the features of Claims 6 and 9 not addressed by the Office Action. At the conclusion of the interview, Examiner Young agreed that the claims discussed are different in scope than the cited references.

Amended Claim 6 is directed to a signal-processing unit, comprising: (1) an input unit configured to provide a plurality of analog input signals; (2) a multiplexer circuit that receives said plurality of analog signals from said input unit and outputs the plurality of analog signals to one signal line in a desired sequence; (3) an analog-digital conversion circuit that sequentially converts each analog signal output from the multiplexer circuit into a digital signal and outputs the digital signal; and (4) a cross talk compensation circuit

configured (a) to receive a plurality of the digital signals sequentially outputted from said analog-digital conversion circuit, (b) to assign, for each digital signal of the plurality of digital signals, a corresponding set of coefficients selected so as to compensate for interference effect levels between the plurality of analog input signals and (c) to calculate, for each digital signal of the plurality of digital signals, an output value by multiplying the plurality of digital signals by said corresponding set of coefficients and summing the multiplied signals.

Regarding the rejection of Claim 6 under 35 U.S.C. § 103(a), the Office Action asserts that the '650 patent discloses everything in Claim 6 with the exception of "cross-talk correction by calculating a 'coefficient between each of a plurality of signals' and 'data obtained by multiplying the signals by the coefficients are added up,'" and relies on the '187 patent as providing the feature of a cross talk compensation circuit.

The '650 patent is directed to an analog to digital conversion system usable in conjunction with an attitude sensing system incorporating a gyroscope for providing digital samples of the output signals of the attitude sensing system.

However, the "cross talk" described in the '650 patent is carry-over from one multiplexor input channel to subsequent channels caused by dielectric absorption in the hold capacitor and amplifier settling times as the channels are sequentially selected by the multiplexor. An auto-zero signal causes the polarity of the samples being received to be reversed. The '650 patent does not teach or suggest a cross talk compensation circuit configured (1) to receive a plurality of the digital signals sequentially outputted from said analog-digital conversion circuit, (2) to assign, for each digital signal of the plurality of digital signals, a corresponding set of coefficients selected so as to compensate for interference effect levels between the plurality of analog input signals, and (3) to calculate, for each digital signal of the plurality of digital signals, an output value by multiplying the

plurality of digital signals by said corresponding set of coefficients and summing the multiplied signals, as recited in Claim 6.

The '187 patent is directed to signal delay apparatus for controlling delay amounts of detected signals from a plurality of tracks formed on a recording medium, a leakage signal removing apparatus for removing a leakage signal caused by the detected signals of other tracks from any detected signal, and an information processing apparatus. The cross talk canceling circuit, shown in Fig. 9 of the '187 patent, operates on a single detected signal reflected from a track in a recording medium. The circuit functions to remove leakage signals caused by light reflections from adjacent tracks. Further, the coefficients used in the cross talk canceling circuit of the '187 patent are dynamically calculated during the processing of the signals, as opposed to being previously stored.

Thus, the '187 patent does not teach or suggest the a cross talk compensation circuit configured to (1) to receive a plurality of the digital signals sequentially outputted from said analog-digital conversion circuit, (2) to assign, for each digital signal of the plurality of digital signals, a corresponding set of coefficients selected so as to compensate for interference effect levels between the plurality of analog input signals, and (3) to calculate, for each digital signal of the plurality of digital signals, an output value by multiplying the plurality of digital signals by said corresponding set of coefficients and summing the multiplied signals, as recited in Claim 6.

Further, Applicant respectfully submits that the '650 patent and the '187 patent are non-analogous art as the '650 patent is an analog to digital converter for a gyroscopic device and the '187 patent is used in processing the output signals from digital recording media.

Further, it is not obvious to one of ordinary skill how the cross-talk canceling circuit of the '187 patent is applicable to the '650 patent as cross talk, of a nature which can be addressed by such a circuit, does not exist in the '650 patent.

Thus, no matter how the teachings of the '650 patent and the '187 patent are combined, the combination does not teach or suggest assigning for each digital signal of the plurality of digital signals, a corresponding set of coefficients selected so as to compensate for interference effect levels between the plurality of analog input signals, as recited in amended Claim 6. Accordingly, Applicants respectfully submit that the rejection of Claim 6 (and all associated dependent claims) under 35 U.S.C. § 103(a) is rendered moot by the present amendment to Claim 6.

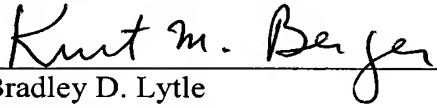
Claim 9 has been amended to include similar features to those discussed above with respect to Claim 6 and for similar reasons Applicants respectfully submit that the rejection of Claim 9 (and all associated dependent claims) is rendered moot.

Thus, it is respectfully requested that independent Claims 6 and 9 (and all associated dependent claims) patentably define over any proper combination of the cited references.

Consequently, in view of the present amendment and in light of the above discussions, the outstanding grounds for rejection are believed to have been overcome. The application as amended herewith is believed to be in condition for formal allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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